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Report to Congressional Committees

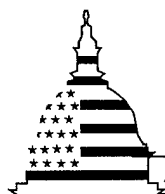
June 2000

DEFENSE LOGISTICS

Actions Needed to Enhance Success of Reengineering Initiatives



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Abbreviations

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The Department of Defense estimates that in fiscal year 2000, it will use about one-third of its \$280-billion budget (about \$84 billion) for logistics support activities. Logistics activities include weapon system maintenance, supply management, engineering, storage, distribution, and transportation of military goods. In recent years, a number of studies have stressed the need to improve the efficiency and effectiveness of the Department's logistics processes, systems, and infrastructure to provide improved support to combat forces and to achieve savings that can be used to modernize weapon systems. Accordingly, the Department is seeking to reengineer¹ its logistics support.

Central to the Department's overall approach, which is being guided by the Office of the Secretary of Defense, is a move toward a system that places greater reliance on the private sector and uses improved logistics processes and capabilities. The Department's August 1999 *Logistics Strategic Plan* outlines its approach to logistics reengineering and includes a time frame for implementation. The plan states that by the end of fiscal year 2005, the Department's logistics process will be a highly efficient, integrated system that provides required support to combat forces. A key element of the reengineering strategy is 30 pilot weapon system programs (10 in each service) that will be used to test the use of best commercial practices² and give increased responsibility and authority to program managers of weapon systems, with the expectation of reducing total ownership costs over the life of the weapon systems. The Department's goal is to use lessons learned from the pilots to implement successful reengineering concepts Department-wide. At the same time, the services and the defense agencies have about 400 ongoing individual

¹The Department and the military services refer to changes in logistics systems as reengineering, restructuring, transforming, etc. For consistency, we use the term reengineering throughout this report.

²Best commercial practices are techniques used by private industry to achieve superior performance. They include activities such as outsourcing and electronic commerce.

initiatives to improve logistics support.³

Section 364 of the National Defense Authorization Act for Fiscal Year 2000⁴ requires us to review the Department's logistics reengineering initiatives, focusing in particular on whether the effort would provide adequate supplies to military units and installations should it be necessary for the Department to execute the National Military Strategy prescribed by the Chairman of the Joint Chiefs of Staff.⁵ As discussed with your offices, we will be responding to this mandate with a series of reports.⁶ For this report, we assessed (1) what actions are underway and how complete the Department's plans for reengineering are, (2) what the potential effect of the reengineering effort is on combat forces, and (3) what factors could limit the achievement of reengineering goals.

Results in Brief

The Department of Defense has taken significant steps toward reengineering its logistics processes. However, many aspects of the overall plan are incomplete, raising questions about whether the overall goals of improved service and lower costs will be achieved. Key steps the Department has taken include establishing a special office responsible for coordinating implementation of the reengineering effort and overseeing efforts to link hundreds of ongoing service-sponsored logistics reengineering initiatives to the Department's overall reengineering plans. The Department has also established 30 pilot programs to test various reengineering concepts. However, it has not developed an overarching plan that integrates individual service efforts into a single Department-wide implementation strategy. Further, plans to test, evaluate, and fully implement reengineered support strategies Defense-wide by the end of 2005 face a number of challenges, making it unlikely that the pilot programs will be able to provide key information in time to support interim decision-making deadlines. In some instances, pilot test plans have not

³The 1999 Defense Reform Initiative update used this figure to identify major logistics actions under way.

⁴P. L. 106-65.

⁵The National Military Strategy requires that the Department be able to respond to the full spectrum of crises, from small-scale contingencies to major wars.

⁶Additional reviews are under way to address other issues in the mandate, including spare parts shortages, war reserve planning, and prepositioned stocks. These reports will be completed at a later date.

been fully developed, in others, test results may be delayed. Additionally, because many of the 30 pilot programs have multiple objectives, it will be difficult to link results and savings to specific reengineering concepts. Finally, the Department has not estimated the total costs of completing logistics reengineering or developed a supporting budget plan. Without such an investment strategy, there may not be sufficient funds to adequately test the reengineering concepts being piloted and to implement the results on a Department-wide basis.

It is too early to assess the impact of reengineering logistics support on combat forces. Officials representing combat forces have brought up a number of concerns, including the effects of having large numbers of private contractors on or near the battlefield to provide logistics support, the ability of contractors to meet the surge in demand resulting from intensifying military operations, and the effects of outsourcing on the number of positions available to military personnel returning to the United States from overseas assignments or at-sea deployments. The Department is in the early phases of developing its Joint Logistics Warfighter Initiative test that may be useful in assessing the impact of various logistics reengineering efforts on combat forces in an operational environment. However, the test is scheduled to take place before the reengineering initiatives are fully implemented, and its usefulness will therefore be very limited in assessing the impact of the reengineering concepts on combat forces.

Several factors, if not addressed, could limit the Department's ability to achieve its reengineering goals of improved service and lower costs. These include the effect of not centrally managing parts, the impact that sole-source, long-term contracts would have on anticipated reengineering savings, and how to manage reengineering logistics within the bounds of existing laws and policies.

This report makes recommendations to improve the planning and implementation of the logistics reengineering effort. The Department generally agreed with the report and its recommendations.

Background

The Department of Defense (DOD) owns and operates a vast array of weapon systems and equipment, including airplanes, ships, and tanks. Military units perform some maintenance and repairs on these items, while the Department relies on its own maintenance depots and private-sector facilities to perform major overhauls and upgrades. New spare and repair

parts are procured from the private sector and distributed through the Department's centrally managed supply system. Equipment components are repaired by both DOD repair facilities and by the private sector. The defense infrastructure also includes a centralized transportation system that moves equipment and parts both within the continental United States and overseas using military and private-sector movers and shippers.

We have previously reported that the Department's accounting systems do not routinely capture the total costs of its logistics support activities,⁷ and differing estimates of these costs exist within the Department. However, a special assessment initiated by the Under Secretary of Defense for Acquisition and Technology in 1999 to better define these costs indicated that DOD will spend about \$84 billion on logistics in fiscal year 2000, as shown in table 1.

⁷*Department of Defense: Progress in Financial Management Reform* (GAO/T-AIMD/NSIAD-00-163, May 9, 2000).

Table 1: Estimated Fiscal Year 2000 Logistics System Personnel and Costs

Dollars in billions		
Function	Personnel ^a	Costs ^b
Depot maintenance	61,987	\$5.9
Other national-level maintenance ^c	13,378	3.9
Material management	39,068	19.1
Distribution and transportation	16,339	2.6
Operational ^d maintenance	403,320	16.7
Operational ^d supply	141,327	5.8
Operational ^d transportation	44,119	1.3
Other operational logistics ^e	158,298	6.0
Other product support ^f	3,744	0.2
Logistics support not related to weapon systems ^g	363,051	22.3
Total	1,244,631	\$83.8

^aIncludes military active duty and reserve personnel and DOD civilian employees.

^bIncludes costs for both DOD and contractor operations.

^cIncludes maintenance that is not part of the defense working capital fund (such as ordnance depots and ship maintenance activities not in a depot).

^dRefers to unit level functions.

^eIncludes funding and personnel attributable to operational logistics but not categorized exclusively into maintenance, supply, or transportation.

^fIncludes miscellaneous product support not categorized exclusively as maintenance, supply, or transportation (such as logistics administrative support).

^gConsists of strategic transportation, clothing, subsistence, and medical supplies not directly related to a specific weapon system.

Source: Logistics Management Institute estimate prepared for DOD.

DOD has completed a number of studies on ways to improve its support processes. Generally, these studies have focused on increasing reliance on the private sector to meet the Department's logistical support needs, as well as making greater use of improved technologies, new business processes, and commercial transportation. The studies have laid the groundwork for the Department's current reengineering efforts discussed in this report. (The objectives of each study are described in app. I.)

Progress Has Been Made, but Planning and Processes for the Reengineering Effort Can Be Improved

DOD has taken some steps to reengineer its logistics support activities. It has outlined important principles and concepts that it wants to test for broader application in logistics restructuring. It has also established an office with specific responsibility for overseeing the process and is beginning to develop a new logistics architecture—a blueprint that is intended to guide and control the development and maintenance of the many related logistics systems. However, it has not developed an overall plan to link its broad reengineering goals to the approximately 400 individual service initiatives that are already under way to improve the logistics support system. Although the services have been directed to develop a plan that links their initiatives to DOD's overall vision, it remains unclear how these individual service plans will be integrated into the overarching architecture. Further, many of the 30 pilot programs set up to test the logistics reengineering concepts face a number of challenges and likely will not be able to generate sufficient information in time to support key decision-making milestones. Therefore, the planned DOD-wide logistics reengineering completion date of 2005 is questionable. In some instances, questions exist about whether selected pilot projects will provide meaningful tests of reengineering concepts because the projects are more oriented to meeting objectives other than those associated with logistics reengineering.

Reengineering Principles Have Been Defined, and a Coordinating Office Has Been Established

Two key documents set forth the general principles of the reengineering process. The first is DOD's August 1999 *Logistics Strategic Plan*, which outlines the characteristics of the new logistics concept and a time frame for implementation. The plan states that by the end of fiscal year 2005, DOD's logistics process will be a highly efficient, integrated system that provides required support to combat forces. The second document is DOD's April 1998 *Report to Congress on Actions to Accelerate Movement to the New Workforce Vision*, which provides a broad overview of planned reengineering efforts. The report discusses five fundamental reengineering concepts:

- Reengineering product support (logistics support focused on a weapon system or its support system) by adopting the **best practices** used by private industry to achieve superior performance.

-
- Competitively sourcing product support by using **competition** (either a public/private competition or a competition among private-sector sources) or **business case analysis**⁸ to select a source for long-term total life-cycle⁹ support.
 - **Modernizing** systems by replacing outmoded components with new components that have increased reliability, maintainability, or supportability.
 - Expanding the use of **prime vendors and virtual prime vendors**¹⁰ through long-term partnerships with private-sector providers to support weapon systems using techniques such as on-demand manufacturing.
 - Establishing weapon systems **program manager oversight** of life-cycle support by expanding the manager's role in the support phase of a system's life span.

The first four concepts were more fully addressed by the July 1999 report, *Product Support for the 21st Century*, and the fifth by the October 1999 report, *Program Manager Oversight of Life-Cycle Support*.¹¹ On the basis of the two reports, DOD adopted 30 pilot programs (10 in each service) that will be used to test the 5 concepts. Conducting a pilot program for the purpose of reengineering logistics support involves (1) selecting systems that represent the variety of equipment in the DOD inventory, (2) deciding which concepts might apply to the selected pilots, (3) designing tests of the concepts for the selected pilots and establishing milestones and ways to measure results, (4) performing the tests and accumulating resulting data, and (5) analyzing the test results to determine which approaches

⁸In the absence of competition, the services will use a business case analysis, which involves a comparison of the costs and benefits of the current logistics support process with the estimated costs and benefits of the proposed alternative approaches.

⁹The life-cycle of a system includes development, production, operational support, and disposal.

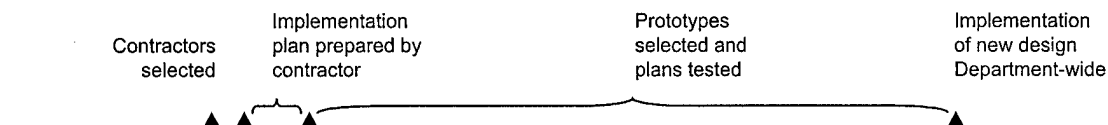
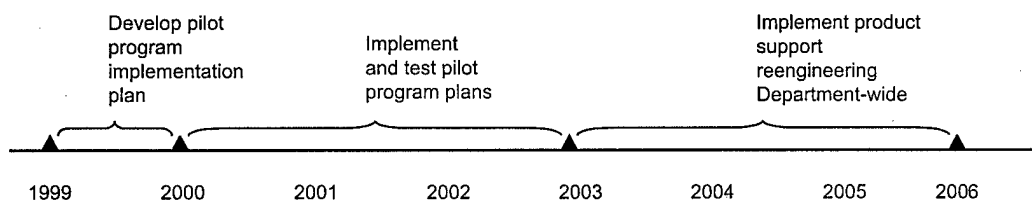
¹⁰A prime vendor is a private firm that provides commercial products using commercial pricing and established distribution arrangements. A virtual prime vendor is a private firm that performs integrated supply chain management, a broad set of functions involving the movement, maintenance, technology improvement, or configuration management of products. The concept has been widely applied for consumable goods and is now being adopted for repairable items.

¹¹The October 1999 *Program Manager Oversight of Life-Cycle Support* report was released as a study group report, not as an implementation report for DOD's April 1998 *Report to Congress on Actions to Accelerate Movement to the New Workforce Vision*.

accomplish the objective of reducing logistics support costs and improving the level of support to combat forces.

In October 1999, DOD established the Office of the Assistant Deputy Under Secretary of Defense for Logistics Architecture to oversee the Department's logistics reengineering efforts, including those involving the 30 pilot programs, and to build on the hundreds of major reengineering efforts that are under way in the services and Defense agencies. The Office is responsible for designing a logistics system for business processes, physical infrastructure, and information technologies, as well as defining the services' responsibilities within the new logistics architecture.

The Office has begun work on an integrated logistics architecture that is intended to facilitate the implementation of reengineered logistics support processes and procedures by the end of fiscal year 2005. In the same way that a building's plans must show its features, its systems and their functions, the relationships between components, and the construction of these components, the logistics architecture must show the features, relationships, makeup, and functions of different logistics components. In April 2000, the Office selected two contractors to develop competing logistics architecture designs. The Office plans to begin evaluating the contractors' proposals in June 2000 as an initial step toward developing a logistics architecture design. Subsequently, an implementation plan will be developed to facilitate implementing the new logistics design across the Department by the end of fiscal year 2005. Figure 1 shows the projected milestones for key reengineering efforts.

Figure 1: Key Reengineering Milestones**Logistics architecture****Product support reengineering**

Note: Each year indicates the beginning of the fiscal year.

Source: Our analysis.

Individual Efforts Not Linked to Overarching Plan

In an effort to achieve consistency among the reengineering initiatives under way in the services and the Department's overall strategy, the Department, in a March 23, 2000 directive, required the military services to establish logistics reengineering plans by July 1, 2000. The directive requires that the plans relate the 400 different service-sponsored logistics reengineering initiatives to the DOD *Logistics Strategic Plan* objectives and include performance measures for reporting progress and meeting milestones. The directive also requires the Under Secretary of Defense (Acquisition, Technology, and Logistics) to review the military service and Defense agency logistics reengineering plans annually. However, there is no requirement to develop an overall plan that integrates the service plans, and the absence of such an overall framework places the ultimate success of the effort at risk.

The absence of an overall plan lessens the potential of the different initiatives now being developed by the services and Defense agencies and of the Department's 30 pilot programs to pursue complementary objectives. For example, 2 of the 30 pilot programs, both major Marine Corps weapon systems,¹² are pursuing product support reengineering plans developed by the weapon system program managers, which may be incompatible with the logistics support concept being developed by the Marine Corps Materiel Command. Under the reengineering plans developed by the Marine Corps program managers, the weapon systems manufacturer or its subcontractors would provide most logistics support for the two systems. However, under the Marine Corps Materiel Command's reengineering concept, parts and components that are critical to a weapon system's ability to perform its mission would be supported by the DOD logistics infrastructure. Without an overarching plan that clearly establishes priorities and procedures, it will be impossible to ensure that service-sponsored initiatives are compatible with the Department's overall restructuring plans. In the absence of such a plan, the Department faces the increased risk that initiatives in some cases may duplicate each other and in other cases may have contradictory aims that work against each other. Further, without an integration plan, DOD cannot evaluate and prioritize competing initiatives; consequently, some funding for initiatives may not be spent in the most efficient way.

**Current Implementation
Schedule Is Overly
Optimistic**

DOD plans to use the 30 pilot programs to generate information to develop future models for reengineering and policy changes and to fully implement reengineered support strategies Department-wide by the end of 2005. However, the Department's plans to generate such information face a number of challenges. Some pilot program test plans have not been fully developed, test objectives for others have not been clearly defined or may subsequently change, and test results of some pilots may be delayed. Likewise, the Department faces other challenges, such as transferring government parts inventories to the private sector or having sufficient funding to fully implement some pilots. As a result, key information that will be needed to assist in the reengineering process likely will not be available in time to meet decision-making deadlines.

The 30 pilot programs are being run to test various reengineering concepts such as use of best commercial practices and prime vendor support

¹²The Advanced Amphibious Assault Vehicle and the Medium Tactical Vehicle.

(see app. II for the list of pilots and their associated product support strategies). The pilots will be used in three phases of the reengineering effort. In the first phase, which is expected to end in mid-fiscal year 2000, the Office of the Logistics Architect and the services are expected to refine the strategies for addressing the reengineering concepts noted earlier and develop plans and strategies for the specific pilot programs. The second phase, which began in early fiscal year 2000, involves implementing the various pilot program strategies and testing the effectiveness of the reengineering concepts. This phase is expected to end when test results are obtained at the end of fiscal year 2002. The third phase will start at the beginning of fiscal year 2003 and will involve transferring results of the successfully piloted reengineering concepts to other DOD systems. DOD estimates that the third phase will be completed by the end of fiscal year 2005.

DOD will likely face a number of challenges in meeting its current milestone to begin implementing reengineering concepts Department-wide at the end of fiscal year 2002. Our work shows that some pilot program test plans have not been fully developed because the programs only recently have been selected as pilots and have not had sufficient time to develop their plans. Further, other pilot programs have test objectives that have not been clearly defined or may change. Finally, test results of other pilot programs may not be available because pilot tests will not be completed before the end of fiscal year 2002. Table 2 identifies the number of pilot programs in each service that will have problems providing information to meet the Department's reengineering schedule.

Table 2: Number of Pilot Programs Whose Plans Are Not Likely to Meet Logistics Reengineering Time Lines

Problem ^a	Number of pilots, by service			Total
	Army	Air Force	Navy	
Test plans not yet developed	2	1	4	7
Test plans subject to change	6	7	4	17
Test results likely not available at end of fiscal year 2002 to support DOD-wide reengineering	7	6	8	21

^aProblems are not mutually exclusive; consequently, some pilot programs are included in more than one category.

Source: Our analysis.

Six of the original 30 pilot programs (2 Army and 4 Navy) have been dropped, and implementation plans for replacement projects had not been fully developed as of March 31, 2000. Additionally, most program managers generally described their plans as tentative in nature and subject to change. For example, plans for seven of the Air Force's pilot programs, while generally expected to address the reengineering concepts identified by the Department, have not been finalized, although the plans were originally expected to be completed in November 1999. Further, while the pilot programs are supposed to produce sufficient evaluative data on reengineering concepts by the end of fiscal year 2002, many of them will not produce such data until 2003 or later, well after full implementation is slated to begin. For example, the Navy's LPD-17 transport ship pilot program includes testing the concept of contractor logistics support after the ship is delivered and placed into service. However, the first LPD-17 ship is scheduled for delivery in September 2003, approximately 1 year after the end of the pilot program test period.

Pilot Programs Face Problems Transferring Inventory to Contractors

Eight of the pilot programs, including the Army's Apache and the Navy's H-60 helicopter program, are considering a contractor-managed approach in which a single contractor would have total responsibility for system performance, including, repair, maintenance, inventory management, and configuration control. However, before this approach can be implemented, the issue of how to transfer government-owned inventory to private contractors will have to be resolved because current regulations make such transfers very unattractive to the private sector. Current policies do not allow DOD to sell an item for less than what it originally paid, but according to a DOD comptroller official, contractors have been reluctant to purchase DOD inventory because they believe that some inventory items are overvalued. Our work shows that the Army's Apache and the Navy's H-60 program offices have suggested alternative methods for transferring control of government-owned inventory to the control of contractors without the contractors purchasing the items at full cost. To address the problem, the DOD comptroller is working with the services and the effected pilot programs to develop a solution. However, to date, no agreed solution has been reached within DOD to resolve the issue. This problem, which applies to most weapon systems now in use, may affect the Department's ability to pursue a contractor-managed systems approach.

Pilots Face Funding Problems

Our prior work has shown that significant up-front investment costs are often required to implement reform initiatives; these costs may be offset over time as savings begin to accrue. However, DOD has not developed an investment strategy for the reengineering effort to include preparing an estimate of total costs and developing a budget plan to fund the investment needed to support the planned reengineering efforts. In addition, our financial audits have continued to highlight limitations in the Department's ability to identify and track costs and associated savings. Program managers have noted that little new funding has been provided to invest specifically in the pilot efforts, and it is unclear how much funding will be available. Program managers also stated that they needed control of operational and support funding to effectively test some reengineering concepts.

According to Army and Navy service logistics officials, implementing reengineering concepts as rapidly as is now expected could require sizable conversion costs that are difficult to cover within existing budgets. For example, the Army's Abrams tank pilot program estimates that it will require about \$4 billion to fully implement the program's pilot concepts. This amount includes funds for overhauling existing engines and tanks, purchasing new and more fuel-efficient engines, awarding a performance-based logistics support contract, establishing a contractor-operated repair facility for tank components, and designing and acquiring built-in testing devices for the tank fleet. Most program officials stated that their pilot programs will not be able to conduct needed tests effectively, efficiently, and on schedule without such up-front investments. These officials expressed doubts that their pilot programs will receive sufficient funds to test the planned initiatives.

Additionally, an October 1999 DOD report¹³ indicated that all 10 of the Army's pilot projects and 9 of the Navy's 10 pilot programs will require that some operation and support¹⁴ funding be transferred from combat commands to program managers.¹⁵ Program officials stated that they need

¹³*Program Manager Oversight of Life-Cycle Support*, Report of the Department of Defense Program Manager Oversight of Life-Cycle Support Study Group (Section 912c, Oct. 1999).

¹⁴Operations and support includes fuel, repair parts, maintenance, contract and support services, and personnel.

¹⁵Combat commands generally control operations and support funds, while program offices generally control acquisition funds.

control of operation and support funding to effectively develop prime vendor relationships, provide new technology, and achieve the competitive sourcing envisioned by the pilot programs. The report also indicated that all three military departments were seeking authority to reinvest some of the cost savings achieved through reengineering efforts into their weapon system programs (cost savings are usually deducted from a program's acquisition budget). Program officials see reinvestment as an incentive to undertake these efforts.

Some Pilot Programs May Not Provide Meaningful Tests of Reengineering Concepts

On the basis of our discussions with pilot program managers and review of program plans and test schedules, we determined that the test results of most pilot programs may not be able to demonstrate a clear link to specific reengineering concepts because the pilot programs were based on plans initially designed to reduce costs, not to reengineer logistics.¹⁶ For example, the Navy's Standoff Land Attack Missile pilot focuses on reducing program acquisition costs, mostly by increasing production rates. The Navy's Smart Carrier pilot plan focuses on reducing operating and support costs through improved technology and work processes to reduce manpower requirements. Smart Carrier pilot program officials told us they would consider revising the pilot program plan to address reengineering concepts in the future but had made no firm decision about the concepts to be tested. It is unclear how these initiatives would directly support logistics reengineering concepts.

Further, the pilots will have difficulty showing how much savings or improvement could come from a specific reengineering concept because in some cases, they will have difficulty determining the causes of savings—reengineered processes or other actions such as investments in new hardware. For example, the Abrams tank pilot program involves both changes to the logistics support system and installation of a more reliable and fuel-efficient engine. Reengineering plans, however, do not include a methodology that allows program officials to determine which of the two—the engine or the changes in logistics—would be responsible for which portion of any future savings. In another example, the Air Force's F-16 pilot program involves major upgrades to the aircraft's electronics system.

¹⁶In January of 1999, the Defense System Affordability Council directed the services to develop plans to reduce operating and support costs of weapon systems by 20 percent by 2005. These plans were in place at the time weapon systems were selected as pilot programs and in some cases were used in lieu of separate product support reengineering plans.

These upgrades involve reliability, maintainability, and technology improvements and a reengineered process for managing new components. However, the reengineering effort does not have a methodology for distinguishing savings that come from reengineering logistics processes versus savings that occur as a result of investments in new components.

Effects of Reengineering Efforts on Combat Forces Not Yet Known

It is too early to assess the effect of ongoing reengineering efforts on combat forces because DOD does not know how the final logistics system will be structured. However, military officials associated with various combat organizations have raised some issues about the reengineering process that will need to be addressed soon if the initiatives are to be successful. Logistics support personnel from the Joint Chiefs of Staff and combat commands in the United States and Europe voiced a number of concerns about the potential effects that some reengineering efforts could have on their operational capability. These concerns involved the presence of increasing numbers of contractor personnel on or near the battlefield, the ability of contractors to meet "surge requirements", the potential reduction of rotational positions to meet training requirements, and the overall impact on product support costs and funding. To address these concerns, DOD has begun developing a test that may be useful in assessing the effects of logistics reengineering efforts in an operational environment. However, this test may not yield results for use in key DOD-wide reengineering decisions planned at the end of fiscal year 2002.

Contractors on the Battlefield

Some initiatives (such as the Army's Apache Prime Vendor and the Tube-launched Optically-controlled Wire-guided Improved Target Acquisition System) may use private contractors on or near the battlefield to order and distribute supplies, maintain items, and provide technical support. Combat command officials raised the following concerns about increasing the use of contractors on or near the battlefield:

- Combat units' ability to conduct wartime missions could be weakened if contractors are withdrawn or are unwilling to stay on or near the battlefield during hostilities.
- Providing the required support and protection to contractors on or near a battlefield may require extra personnel and may divert resources from the wartime mission at a time when the services are trying to reduce their logistical presence in areas close to the battlefield.
- Contractors that are included in battlefield plans would also have to be included in the deployment planning process; otherwise, combat forces

may be required to take extraordinary actions at the time of deployment to send needed contractors to the battlefield.

- Someone on the battlefield would have to be assigned responsibility for managing and exercising control over battlefield contractors because with some deployed contractors being managed by a contracting officer stateside, the battlefield command structure may become tangled, frustrating the battlefield commanders' ability to perform.

Combat personnel also indicated that a relatively small number of contractors on the battlefield might be manageable but that large numbers would definitely accentuate these issues. They could not specify this threshold in terms of numbers.

Higher Requirements During Wartime and Contingency Operations

Although the logistics reengineering effort clearly aims at greater reliance on supply chains controlled by private contractors, combat officials raised concerns about the ability of such a support system to deliver the additional quantities of critical items that are needed to meet what are known as wartime "surge requirements."

DOD has traditionally relied on stockpiles of government-owned and managed inventories and repair facilities to meet day-to-day operating requirements and on supplemental quantities of critical items and excess repair capacity to meet surge requirements during extended contingency operations. Some reengineering pilots rely on commercial entities to provide these supplies and repairs, but combat officials think surge requirements could be a problem, especially if more than one theater of operation is involved. It is unclear at this point to what extent DOD would require contractors to maintain surge capability and whether this capability would be included in contracts and the resulting effects on costs.

Combat officials believe that temporary surges in demand may be manageable—if not predictable—in the commercial sector, where vendors deal with demand patterns that are generally known. They noted that DOD successfully uses prime vendor arrangements for some consumable items such as food and medical supplies, which have large networks of suppliers. However, they also noted that military parts and systems have different characteristics. They involve limited numbers of potential suppliers and demand patterns that are difficult to predict because parts are often unique and have low usage or erratic demand.

Rotational Assignments for Military Personnel

Having more private contractors perform military functions could reduce the number of available assignments for military personnel to rotate to in the United States when returning from overseas or at-sea assignments. Combat command officials fear that this could increase overseas or at-sea tour lengths and exacerbate morale problems. For example, in responding to the March 1999 draft of DOD's *Product Support for the 21st Century* report, the Navy's Atlantic Fleet Command stated that initiatives that would contract out military positions ashore would need to be managed carefully to avoid affecting sea-to-shore rotations and associated opportunities for skill development.¹⁷ Navy officials from U.S. Naval Forces Europe have stated that the loss of support-related shore positions would require sailors to spend more time afloat, increasing concerns about quality of life and retention. The officials are also worried that the collateral duties of shore positions that are contracted out might have to be shouldered by remaining personnel, increasing the length of their workday. In reviewing a draft of this report, DOD officials said they are aware of this issue and are sensitive to combat officials' concern about the effect contracting logistics functions would have on personnel returning from overseas or at-sea tours.

Control of Funding

Combat officials are concerned that they may lose the flexibility to prioritize funding under a reengineered logistics system that places greater responsibility and authority in the hands of DOD weapon system program managers. Although they acknowledge that quality of support is a key goal, officials are also concerned about the effects that different fund management controls may have on total costs. Some product support reengineering initiatives contemplate shifting control of operations and maintenance funding away from combat commands to program managers, potentially diminishing the commanders' flexibility to manage unit funding priorities. Under the current process, for example, a commander can postpone scheduled maintenance or reduce supply levels to free up funding for higher priority requirements. Under the reengineered system, the commander might not be able to do so.

Test May Not Yield Results in Time for 2002 Decisions

DOD is in the early stages of developing the Joint Logistics Warfighter Initiative to test the effect of logistics reengineering efforts on combat

¹⁷ *Defense Outsourcing: Impact on Navy Sea-Shore Rotations* (GAO/NSIAD-98-107, Apr. 27, 1998).

forces. The initiative will use U.S. Central Command forces during operational exercises in Egypt in fiscal year 2002. During this exercise, customer wait time data will be collected and analyzed to identify problems in providing logistics support to combat forces and to propose corrective actions. According to Office of the Secretary of Defense officials, this test will indirectly evaluate the operational effectiveness of reengineered logistics systems. The Joint Logistics Warfighter Initiative test is expected to determine the effects of the Department's pilot program reengineering initiatives on customer wait times. However, as discussed above, it is not clear to what extent pilot program logistics restructuring will have evolved at that point. The 2002 demonstration can only test changes that will have already been implemented long enough for their effects to be assessed. Consequently, the results of the Joint Logistics Warfighter test may not provide results indicating the impact of pilot program reengineering changes before key reengineering implementation decisions are made at the end of fiscal year 2002.

Other Issues That Could Affect Reengineering Goals

Several factors, if not addressed, could limit the Department's ability to achieve its reengineering goals of improved service and lower costs. These include (1) the effect not centrally managing parts would have on savings; (2) the impact using sole-source, long-term contracts would have on anticipated reengineering savings; and (3) how to manage reengineering logistics within the bounds of existing laws and policies.

Impact of Not Centrally Managing Parts on Savings

DOD has not examined whether reengineering efforts may reduce some of the savings now obtained by centrally managing items used by more than one system. For example, a major U.S. automobile manufacturer reportedly saves over \$1.8 billion a year by increasing the use of common parts across different product lines to achieve efficiencies (such as eliminating design duplication or consolidating purchases for more efficient buying practices). Similarly, in a March 1999 letter to the Deputy Under Secretary of Defense (Logistics), military service and Defense agency commanders indicated that they would consolidate orders for common items used by different weapon systems, thus decreasing the number of parts to be stocked and benefiting from the same economies of scale. Service logistics officials further indicated that they were concerned that if program managers made logistics support decisions on a system-by-system basis, fewer common items would emerge, just at a time when DOD is trying to increase the commonality of its subsystems and parts.

Impact of Sole-Source, Long-Term Contracts on Reengineering Savings

Competitive sourcing is another way DOD has been trying to maximize savings. Our previous work in this area has indicated that competition has reduced costs, regardless of whether a public entity or private company wins a competition. In some cases, however, reengineering efforts plan to use sole-source, long-term contracts. Developing strategies for controlling cost growth in these cases will be a key issue because, as we have previously reported, it is difficult to control cost growth in a sole-source environment.¹⁸ Program managers plan to compare cost and performance of potential government and private-sector providers to determine whether to award initial long-term, sole-source contracts within the pilot programs. But relatively few of them envision competition among multiple private-sector firms, often because of a lack of qualified firms.

Laws and Policies Impact DOD's Logistics Reengineering Initiatives

DOD's efforts to implement product support reengineering concepts must take into account existing statutory and policy constraints. In order to fully implement the envisioned changes, DOD will need to change policies that might encumber the implementation of reengineering and take into account existing laws. Service and DOD officials identified some major statutory provisions and policies that could likely impact reengineering efforts:

- 10 U.S.C. 2464 provides for a "core" logistics capability that is to be identified by the Secretary of Defense and maintained by DOD once identified. Section 2464 generally requires DOD to maintain this capability within a government-owned and operated facility. This provision can limit the ability of the services to contract with the private sector for performance of logistics work.
- 10 U.S.C. 2466 prohibits the use of more than 50 percent of funds made available in a fiscal year for depot-level maintenance and repair for private-sector performance. This provision can limit the amount of depot-level maintenance and repair work that can be performed by private-sector contractors.
- 10 U.S.C. 2469 requires a competition between public and private-sector entities before certain depot maintenance and repair workloads can be changed from government performance to performance by a contractor. This provision limits the ability of the services to transfer depot-level

¹⁸ *Defense Depot Maintenance: Contracting Approaches Should Address Workload Characteristics* (GAO/NSIAD-98-130, June 15, 1998).

maintenance and repair work to the private sector by requiring a public/private competition before moving the work. The competitions, while beneficial, can be time-consuming and complex and may require considerable resources.

- Office of Management and Budget Circular A-76, which describes the executive branch's policy for the performance of commercial activities, and which may apply to logistics activities not covered under 10 U.S.C. 2469, requires a comparison of government and private-sector performance to identify the most cost-effective alternative. The competitive sourcing cost studies required by A-76, like those required under section 2469, while beneficial, can be time consuming and complex and may require considerable resources.
- Pilot program proposals to segregate funds by weapon systems to optimize implementation of the reengineered product support concepts will require changes to existing funding policies within the Department, according to service officials.

In 1999, DOD officials began developing a legislative package requesting relief from legislative constraints facing the Department's reengineering efforts. However, the proposals were not finalized; instead, Department officials decided to work within the existing legal and appropriations framework to define more precisely the impact of the constraints and better document the need for legislative changes.

Conclusions

The Department is in the process of taking actions to reengineer its logistics support system. The process intends to place greater reliance on the private sector to provide more effective and less costly support to combat forces by taking advantage of improved technologies, new business processes, and commercial transportation. However, planning and reengineering process implementation weaknesses put the success of this effort at risk.

Although the Department has developed its long-range vision and goals for reengineering, it does not have a plan or an investment strategy that integrate the individual plans of the services and Defense agencies. As a result, the Department faces an increased risk that initiatives may not be compatible with each other or may have differing objectives. Without an integration plan, DOD cannot evaluate and prioritize the initiatives; consequently, some funding for initiatives may be wasted. Without an investment strategy, there may not be sufficient funds to adequately test the reengineering concepts being piloted and to implement the results on a

Department-wide basis. Finally, until details are known on how the final logistics system will be structured, DOD cannot assess the effect of reengineering efforts on logistics support to combat forces.

DOD will not have key information available from its pilot programs before it expects to make key implementation decisions in 2002. The test that is supposed to evaluate the results of the pilot programs will take place before the reengineering changes themselves are implemented. Consequently, the schedule for testing, evaluating, and implementing initiatives beginning in fiscal year 2003 is questionable, and DOD may make important decisions without all the information it needs. Furthermore, DOD will have difficulty determining how much savings a specific reengineering concept could generate because it does not have a methodology for making this sort of evaluation. And unless the concerns of combat commanders are fully addressed, DOD cannot be sure that reengineering concepts, which may be practical for peacetime operations, will function efficiently and effectively in a combat environment.

Recommendations

To build on and expand DOD's efforts to reengineer its logistics system, we recommend that the Secretary of Defense direct the Under Secretary of Defense for Acquisition and Logistics to develop an overarching plan that integrates the individual military service and Defense agency logistics reengineering plans. Among other things, the plan should include an investment strategy for funding the reengineering initiatives and details of how DOD plans to achieve its final logistics system end-state.

To improve the implementation of DOD's logistics reengineering, we recommend that before proceeding with implementation of product support reengineering, the Secretary of Defense (1) reassess the schedule for testing, evaluating, and implementing pilot program logistics reengineering initiatives; (2) establish a methodology showing how much savings or improvements come from reengineering concept tests; and (3) reassess the approach to addressing combat command concerns about the presence of increasing numbers of contractor personnel on the battlefield, the ability of contractors to meet surge requirements, the potential reduction of rotational slots to meet training requirements, and the overall impact on product support costs and funding.

Agency Comments and Our Evaluation

We received written comments from the Department of Defense, which are reprinted in appendix III. The Department generally agreed with our report and recommendations and stated that significant steps remain to be taken to reengineer Defense's logistics processes. DOD also provided technical comments that we incorporated in the report as appropriate.

In agreeing with our first recommendation, DOD stated that it has several actions underway or planned to integrate service and Defense agency reengineering plans. DOD said it plans to review service reengineering plans for consistency with DOD's Logistics Strategic Planning objectives and use its new logistics architecture to tie various service initiatives into an overarching plan.

DOD partially agreed with our second recommendation. However, the Department's response left unclear what, if any, actions it plans to take. It stated that the Department's schedule for the pilot programs is pragmatic and allows the services time to develop and test various strategies and mitigate risks. However, as stated in our report, 21 of the 30 pilot programs will not likely have test results available at the end of fiscal year 2002, when DOD expects to begin expanding the use of successful reengineering efforts to other weapon systems. We believe our recommendation on the need for reassessing the Department's schedule for testing, evaluating, and implementing program logistics reengineering initiatives is still valid.

DOD also stated that it does not want to prescribe a methodology to assess the extent to which savings or improvements result from reengineering initiatives. Rather, DOD believes the use of metrics such as customer service, readiness, performance, and total ownership cost reduction are sufficient. We agree that such metrics can provide useful information. However, they are not a sufficient measure of savings or improvements because they cannot distinguish the impact of various initiatives from other changes DOD is making to weapon systems. We continue to believe that additional action is needed regarding the establishment of a methodology for tying improvements and savings to specific reengineering efforts.

Scope and Methodology

To assess DOD's logistics reengineering initiatives, we met with headquarters officials in the Office of the Secretary of Defense and the Joint Staff. We also met with Army officials at U.S. Army Materiel Command, U.S. Army Training and Doctrine Command, U.S. Army Forces Command, and U.S. Army European Command; Navy officials at Naval Air

Systems Command, Naval Sea Systems Command, Naval Supply Systems Command and Atlantic Fleet Command, and U.S. Naval Forces Europe; Air Force officials at the Air Force Materiel Command, Air Mobility Command, Air Combat Command, and U.S. Air Forces Europe; and Marine Corps officials at Marine Corps Systems Command, Marine Corps Materiel Command, Marine Corps Combat Development Command, and Marine Corps Forces Europe.

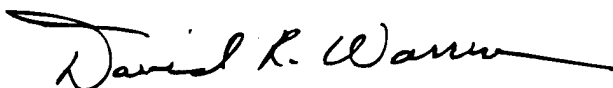
To assess DOD's plans and the adequacy of information for developing the overall reengineering strategy, we reviewed ongoing and proposed initiatives, including 30 pilot programs (10 each from the Army, the Air Force, and the Navy) used to test logistics reengineering concepts. We met with program management officials responsible for each of the pilot programs to obtain a general understanding of pilot goals, milestones, and status as of February 2000. We then compared the anticipated pilot program results with Office of the Secretary of Defense statements regarding goals and objectives for reengineering logistics. We also relied on our prior work in this area, and as well as on prior reports and studies describing past DOD experiences and efforts in logistics reengineering techniques that rely more heavily on private-sector support. We also discussed the status of key logistics reengineering initiatives and challenges with responsible Office of the Secretary of Defense and reengineering team members.

To assess the potential effect of the reengineering effort on combat forces, we discussed the concepts with representatives from operational commands, joint commands, and training and doctrine commands. Through discussions with product support reengineering managers, we assessed the degree of combat force input into DOD product support reengineering initiatives. We also discussed combat commands' positions on the use of contractors to support in-theater operations and any unresolved issues related to the use of in-theater contractors.

To assess any other issues that could affect the achievement of reengineering goals, we reviewed our prior work in this area and prior DOD reports and studies discussing experiences in logistics reengineering. We also discussed legal issues with our Office of General Counsel and relied on the Office to assess the impact of various laws on DOD's reengineering efforts. Finally, while discussing the status of key logistics reengineering initiatives with responsible Office of the Secretary of Defense and reengineering team members, we requested that the officials identify any other issues that might affect DOD's reengineering efforts.

We conducted our review from September 1999 through April 2000 in accordance with generally accepted government auditing standards.

We are sending copies of this report to the appropriate congressional committees; the Honorable William Cohen, Secretary of Defense; the Honorable Louis Caldera, Secretary of the Army; the Honorable F. W. Peters, Secretary of the Air Force; the Honorable Richard Danzig, Secretary of the Navy; General James L. Jones, Commandant of the Marine Corps; and Lieutenant General Henry T. Glisson, Commander, Defense Logistics Agency. We will also make copies available to others upon request. Please contact me on (202) 512-8412 if you or your staff have any questions concerning this report. Key contributors are listed in appendix IV.

A handwritten signature in black ink, reading "David R. Warren". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

David R. Warren, Director
Defense Management Issues

List of Congressional Committees

The Honorable John Warner
Chairman
The Honorable Carl Levin
Ranking Minority Member
Committee on Armed Services
United States Senate

The Honorable Ted Stevens
Chairman
The Honorable Daniel Inouye
Ranking Minority Member
Subcommittee on Defense
Committee on Appropriations
United States Senate

The Honorable Floyd Spence
Chairman
The Honorable Ike Skelton
Ranking Minority Member
Committee on Armed Services
House of Representatives

The Honorable Jerry Lewis
Chairman
The Honorable John Murtha
Ranking Minority Member
Subcommittee on Defense
Committee on Appropriations
House of Representatives

Recent Department of Defense Studies on Logistics Restructuring

Directions for Defense. The May 1995 report of the Commission on Roles and Missions of the Armed Forces recommended that the Department of Defense (DOD) privatize most existing depot maintenance work and all logistics support for new and future weapon systems. In his August 24, 1995, letter to Congress, the Secretary of Defense agreed with the Commission's recommendations but expressed a need for DOD to retain limited capability to meet essential wartime surge demands, promote competition, and sustain institutional expertise.

Joint Vision 2010—America's Military: Preparing for Tomorrow. The 1996 report outlined a direction to the services for developing capabilities within a joint framework of doctrine and programs and called for integration among services. The report presented a concept called Focused Logistics, which DOD expects will enable forces to be more mobile, versatile, and projectable from anywhere in the world, with the expectation that the military will be supported in a matter of hours or days, rather than weeks. DOD expects to achieve Focused Logistics through a fusion of information, logistics, and transportation and a transition from the vertical organizations of the past. The new concept will include having DOD work jointly with the private sector to take advantage of best business practices.

The 1997 **Quadrennial Defense Review** called on DOD to reduce its support infrastructure and streamline its business practices. It proposed that DOD (1) make further reductions in civilian and military personnel associated with the infrastructure; (2) request authority for two additional rounds of base closures; (3) improve the efficiency and performance of support functions by adopting innovative management and business practices, including reengineering, downsizing, and commercializing operations; and (4) consider outsourcing more non-combat related DOD support functions, inviting commercial companies to compete with the public sector to undertake certain support functions.

The 1997 **Defense Reform Initiative** (DRI) called on DOD to reduce its support infrastructure and streamline its business practices. It was built around four major reform efforts, or pillars: (1) reengineering Defense business and support functions, primarily by adopting and applying best practices from the commercial sector; (2) reorganizing and reducing the size of DOD headquarters elements and Defense agencies, including the Office of the Secretary of Defense; (3) expanding the use of competitive sources to open DOD's commercial activities to competition from the private sector; and (4) conducting two additional rounds of base realignments and closures and eliminating other facilities that are no longer needed or drain resources. In April 1999, we reported that it was too early to assess the effectiveness of the DRI in the long term.¹ We did, however, identify several areas where DOD could build on its initial efforts and give even greater impetus to its goals of achieving the desired "revolution in business affairs." Additional efforts could include (1) incorporating other major ongoing reforms in the DRI to develop a more comprehensive and integrated strategy for reforming Defense business and support activities; (2) delineating more clearly the funding requirements needed to achieve major reforms; and (3) enhancing the Department's ability to measure DRI results, particularly through financial management and related reforms.

Actions to Accelerate the Movement to the New Workforce Vision, delivered to Congress by the Secretary of Defense in April 1998, provided the Department's plan to streamline its acquisition organizations, workforce, and infrastructure. The report stated that the maintenance of inventories would undergo dramatic change, as contractors would retain most inventories except for those in the hands of operational forces, while government-held wholesale inventory would largely disappear. The Secretary added that his was a vision of smaller and fewer organizations focused on managing suppliers rather than supplies and on the total costs of ownership to provide and support the high—quality goods and services that combat forces need.

¹Defense Reform Initiative: Organization, Status, and Challenges (GAO/NSIAD-99-87, Apr. 21, 1999).

The 1999 *Logistics Strategic Plan* states that by the end of fiscal year 2005, the joint logistics process will be a highly efficient, integrated system that will ensure the required support to combat forces. The plan states that DOD's logistics mission is to provide responsive and cost-effective support to ensure readiness and sustainability for the total force across the spectrum of military operations. As currently envisioned, the reengineered logistics support system will (1) be a fully integrated supply chain of products and services that meets the needs of combat forces efficiently; (2) replace large inventories with significantly more reliable weapon systems, shortened processing cycles, more agile manufacturing, tailored maintenance support, and accurate schedules of deliveries for products and services; (3) use the concept of best value (most quality received at a reasonable cost versus the lowest cost) to determine how products and services will be provided; (4) use a joint-service logistics command, which will have control of assets and capabilities, information to set support priorities, and the means to direct the distribution of resources across the services during combat operations; (5) use commercial products and capabilities as the principal source of commodity and service support while maintaining core functions² within the department; and (6) provide widespread access to information by integrating data used by private industry and DOD.

²The study defines core functions as military capabilities that are unavailable in the commercial marketplace or tasks that DOD clearly performs in a manner superior to the private sector to satisfy inherently governmental responsibilities.

DOD Weapon System Pilots and Associated Product Support Strategies

Service	Product support strategies
Army pilots – fielded systems	
AH-64 Apache Helicopter	<ul style="list-style-type: none"> • Establish virtual prime vendor for support of Apache aircraft and sub-systems • Modernize system with new components to upgrade system capability
M-1 Abrams Tank	<ul style="list-style-type: none"> • Contractor logistics support on sub-systems • Public/private partnering for overhauling tanks • Use contractor-provided parts kits for engine overhauls • Acquire a more fuel-efficient and reliable tank engine under a long-term performance-based contract
Fire Support Command and Control	<ul style="list-style-type: none"> • Reduce personnel costs by integrating responsibilities for developing new/upgraded systems and sustainment of in-use systems • Reduce parts costs through use of contractor logistics support
Heavy Expanded Mobility Tactical Truck	<ul style="list-style-type: none"> • Partnering between the program office and the Defense Logistics Agency to reduce surcharges to the program • Upgrade the truck with existing commercial technologies to improve reliability and extend service life
CH-47 Chinook Helicopter	<ul style="list-style-type: none"> • Establish a partnership between the program office and the Army Material Command • Focus on system costs by using a functionally based approach • Concentrate on reducing non-hardware cost drivers such as training
Guardrail Common Sensor	<ul style="list-style-type: none"> • Reduce sustainment costs through use of performance-based contractor logistics support for Guardrail-unique items
Army pilots – new systems	
Crusader	<ul style="list-style-type: none"> • Integrated life-cycle support system to support user requirements and lower cost of ownership through use of continuous technology improvements • Long-range plan to competitively source life-cycle support
HIMARS Multiple Launch Rocket System	<ul style="list-style-type: none"> • Prime contractor will have total system support responsibility • Partnering between prime contractor and the Army depots • Use of long-term contracts
RAH-66 Comanche Helicopter	<ul style="list-style-type: none"> • Conduct a strategy support study in 2001 to determine what strategies to pursue
Tube-launched Optically-controlled Wire-guided Improved Target Acquisition System	<ul style="list-style-type: none"> • Contractor logistic support for the life of the system that requires a 90 percent system operating level as a performance requirement
Navy pilots – fielded systems	
Smart Carrier	<ul style="list-style-type: none"> • Technology insertion, reengineered work practices, and design modifications to reduce workload and hence manpower requirements
EA-6B Prowler	<ul style="list-style-type: none"> • Defense Logistics Agency virtual prime vendor contract for parts to support J-52 engine depot level repairs at Naval Aviation Depot, Jacksonville
H-60 Helicopter	<ul style="list-style-type: none"> • Virtual prime vendor support for H-60 parts and material to all levels of maintenance, as well as upgrading and re-manufacturing programs
Common Ships	<ul style="list-style-type: none"> • Technology insertion, reduced cumbersome work practices, and reengineered maintenance to reduce manpower requirements
Aviation Support Equipment	<ul style="list-style-type: none"> • Technology insertion and virtual prime vendor support for consolidated automated support systems
Stand-off Land Attack Missile	<ul style="list-style-type: none"> • Reduce system acquisition costs by accelerating buy-out of missile requirement
Smart Ships	<ul style="list-style-type: none"> • Technology insertion and virtual prime vendor support for integrated ship controls

Appendix II
DOD Weapon System Pilots and Associated
Product Support Strategies

Navy pilots – new systems

Advance Amphibious Assault Vehicle	• Contractor logistics support
LPD-17 Transport Ship	• Contractor logistics support
Medium Tactical Vehicle Replacement	• Contractor logistics support

Air Force pilots – fielded systems

F-16 Fighter Falcon	<ul style="list-style-type: none"> • Program office enters into agreements with suppliers and reviews performance against agreement specifications • Use of a contractor for sustainment of selected avionics items, with the contractor having total system performance responsibility
B-1 Lancer	<ul style="list-style-type: none"> • Program office enters into written agreements with DOD supply sources defining responsibilities and metrics for performance • Contractor developing approaches to address diminishing manufacturing sources and resulting parts obsolescence • Consolidate 19 sole-source contracts into 1 to achieve integration efficiencies • Meld the contractor and the Air Force deficiency reporting systems into one system
C-5 Galaxy	<ul style="list-style-type: none"> • Conduct a comprehensive supply-chain management study to isolate and identify cost drivers for further action • Modernize the aircraft's avionics while using a contractor to provide performance-based support for the new avionics items • Program office enters into written agreements with DOD repair and supply sources
F-117A Nighthawk	<ul style="list-style-type: none"> • Contractor will have total system support responsibility • Contractor incentivized to modernize through spares by sharing any resulting savings
C/KC-135 Stratolifter/Stratotanker	<ul style="list-style-type: none"> • Use of performance-based contract to reduce repair times • Develop agreements with parts suppliers to provide a guaranteed level of spare parts • Reviewing expensive spare parts to identify improvements or replacements
Airborne Warning and Control System	<ul style="list-style-type: none"> • Contractor provides logistics sustainment for the mission computer upgrade • Partnership with NATO to jointly develop test program sets for the radar system improvement program • Contractor maintains the technical data for the system • Analyze partnering opportunities for wholesale depot and supply operations
Joint Surveillance and Target Attack Radar System	<ul style="list-style-type: none"> • Contractor is given total system support responsibility using a 6-year contract, with 22-year award term incentive
C-17 Globemaster III	<ul style="list-style-type: none"> • Contractor logistics support called "flexible sustainment" prior to the source-of-repair decision in 2003
Cheyenne Mountain Complex Integrated Space Command and Control Program	<ul style="list-style-type: none"> • Logistics support will be integrated under one contractor that will be given total system performance responsibility
Air Force pilots – new systems	
Space Based Infrared System	<ul style="list-style-type: none"> • Contractor will be given total system performance responsibility

Comments From the Department of Defense



OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON DC 20301-3000

JUN 16 2000

Mr. David R. Warren
Director, Defense Management Issues
National Security and International Affairs Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Warren,

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "DEFENSE LOGISTICS: Actions Needed to Enhance Success of Reengineering Initiatives," May 18, 2000 (GAO Code 709485/OSD Case 2011). The Department concurs with the report and agrees that significant steps remain to be taken to reengineer our logistics processes.

Logistics transformation is a high priority objective in the Office of the Secretary of Defense, the Military Services, and Defense Agencies. There is unprecedented attention given to logistics, partly because as your report recognizes, it is an \$84 billion enterprise within DoD. In industry terms, it is a large cost center, and as such the private sector has recognized that logistics is a critical component to profitability, competitive advantage, and world class competency. Similarly, in DoD, we realize that logistics is a critical component to operational effectiveness. Operational demands as well as the need for business reform provide the impetus to dramatically reengineer our logistics processes.

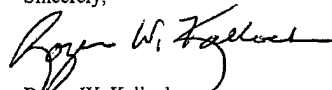
We share some of your concerns about the pace, risk, and costs of logistics reengineering, but the alternative – to go slow, take no risk, and let logistics costs continue to rise – is untenable. We have a golden opportunity to reform logistics. We have outstanding senior leadership attention and support. As your report recognizes, there are dramatic initiatives, such as the pilot programs, proposed by the DoD Components to test new concepts. Technological changes and new business practices position DoD logistics operations to provide better service to the warfighter. Finally, we are experiencing a period of relative peace and continued economic growth. All of this provides a great platform for logistics transformation.



Appendix III
Comments From the Department of Defense

The detailed DoD comments on the draft GAO report recommendations are provided in the enclosure. Additionally, we informally provided your staff suggested changes to the draft report to improve its accuracy and clarity. The DoD appreciates the opportunity to comment on the draft report.

Sincerely,



Roger W. Kallock
Deputy Under Secretary of Defense (Logistics)

Enclosure

GAO DRAFT REPORT - DATED MAY 18, 2000
GAO CODE 709485 OSD CASE 2011

**"DEFENSE LOGISTICS: ACTIONS NEEDED TO ENHANCE SUCCESS
OF REENGINEERING INITIATIVES"**

**DEPARTMENT OF DEFENSE COMMENTS TO
THE GAO RECOMMENDATIONS**

RECOMMENDATION 1: To build on and expand DoD's efforts to reengineer its logistics system, the GAO recommended that the Secretary of Defense direct the Under Secretary of Defense for Acquisition, Technology and Logistics to develop an overarching plan that integrates the individual military service and defense agency logistic reengineering plans. Among other things, the plan should include an investment strategy for funding the reengineering initiatives and details for how DoD plans to achieve its final logistics system end-state. (p. 25/GAO Draft Report)

Now on page 23.

Now on page 11.

DOD RESPONSE: Concur. As the draft GAO report states (p. 9), "In an effort to achieve consistency among reengineering initiatives underway in the Services and the Department's overall strategy, the Department in a March 23, 2000 directive required the Services [and Defense Agencies] to establish logistics reengineering plans by July 1, 2000." This effort, directed by the Deputy Secretary of Defense, is Defense Reform Initiative Decision (DRID) #54. Service and Defense Agency plans submitted in response to DRID #54 will be reviewed for consistency with Joint Vision 2010 and DoD Logistics Strategic Planning objectives. This review will be conducted in conjunction with the summer review of Program Objectives Memorandum (POM) 2002-2007 to assess whether logistics initiatives are resourced and prioritized correctly.

Now on page 10.

Moreover, as the report also recognizes (p. 8), the Department has established a logistics architecture organization to tie the various logistics strategies together. In doing this, the Office of the Secretary of Defense recognized there were many positive logistics initiatives underway throughout the Department that needed to be fit together. Integration of the various plans is to be accomplished by tying the DoD Component logistics initiatives to the operational military requirements of JV 2010 and beyond. The first results of this logistics architecture will be provided by October 2000. Obviously, this is a very complex undertaking and iteration and refinement will be essential. We expect the logistics architecture to be a critical component of the Quadrennial Defense Review strategic recommendations regarding logistics.

Now on page 23.

RECOMMENDATION 2: To improve the implementation of DoD's logistics reengineering, the GAO recommended that the Secretary of Defense (1) reassess its schedule for testing, evaluating, and implementing pilot program logistics reengineering initiatives, (2) establish a methodology showing how much savings or improvements come from reengineering concept tests, and (3) reassess its approach for addressing the combat command concerns dealing with the presence of increasing numbers of contractor personnel on the battlefield, the ability of contractors to meet surge requirements, the potential reduction of rotational slots to meet training requirements, and the overall impact on product support costs and funding before proceeding with implementation of product support reengineering. (p. 25/GAO Draft Report)

DOD RESPONSE: Partially concur. The schedule for implementing pilot program product support strategies extends through FY 2002, and the full implementation of these particular logistics reengineering initiatives is projected through FY 2005. This is a pragmatic schedule intended to allow the Components time to develop various strategies to be tested and time to insure that risks are mitigated. The Department does not expect all 30 pilot programs to test breakthrough logistics reengineering initiatives. We do expect to have a good range of results to evaluate in January 2002 as required in the Defense Planning Guidance. The Components have been given wide latitude in selecting logistics reengineering strategies. We do not want to prescribe a methodology to assess results; instead USD(AT&L) leadership has required acquisition and logistics reform initiatives and pilot programs to be driven by metrics, such as customer service, readiness, performance, and total ownership cost reduction. The reviews conducted in 2002 will be hinged to such metrics. Finally, all logistics reengineering initiatives have been built on the premise of "reengineering from the warfighter back" (reference *Product Support for the 21st Century Report*, page 3-1). The Services and combatant commands have rightfully expressed concerns about the "unintended consequences" of particularly contractor support initiatives. (However, they also recognize the acute operational risks associated with maintaining status quo support concepts.) For this reason, pilot program strategies will be fully coordinated with the user community and implementation evaluations will include user feedback to assess surge capacity, support concept transparency, and customer service levels.

GAO Contacts and Staff Acknowledgments

GAO Contacts

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Acknowledgments

In addition to those named above, Glenn Knoepfle, David Epstein, Larry Junek, John Strong, Pam Valentine, and John Brosnan made key contributions to this report.

Appendix IV
GAO Contacts and Staff Acknowledgments

GAO Related Products

Depot Logistics: Air Force Report on Contractor Support is Narrowly Focused (GAO/NSIAD-00-115, Apr. 20, 2000).

Depot Maintenance: Air Force Faces Challenges in Managing to 50-50 Ceiling (GAO/T-NSIAD-00-112, Mar. 3, 2000).

Depot Maintenance: Future Year Estimates of Public and Private Workloads Are Likely to Change (GAO/NSIAD-00-69, Mar. 1, 2000).

Depot Maintenance: Workload Allocation Reporting Improved, but Lingering Problems Remain (GAO/NSIAD-99-154, July 13, 1999).

Army Logistics: Uncertainties Surrounding Proposed Support Plan for Apache Helicopter (GAO/NSIAD-99-140, May 25, 1999).

Navy Ship Maintenance: Allocation of Ship Maintenance Work in the Norfolk, Virginia, Area (GAO/NSIAD-99-54, Feb. 24, 1999).

Army Industrial Facilities: Workforce Requirements and Related Issues Affecting Depots and Arsenals (GAO/NSIAD-99-31, Nov. 30, 1999).

Defense Depot Maintenance: Public and Private Sector Workload Distribution Reporting Can Be Further Improved (GAO/NSIAD-98-175, July 23, 1998).

Defense Depot Maintenance: Use of Public-Private Partnership Arrangements (GAO/NSIAD-98-91, May 7, 1998).

Defense Depot Maintenance: DOD Shifting More Workload for New Weapon Systems to the Private Sector (GAO/NSIAD-98-8, Mar. 31, 1998).

DOD Depot Maintenance: Information on Public and Private Sector Workload Allocations (GAO/NSIAD-98-41, Jan. 20, 1998).

Defense Depot Maintenance: Challenges Facing DOD in Managing Working Capital Funds (GAO/T-NSIAD/AIMD-97-152, May 7, 1997).

Depot Maintenance: Uncertainties and Challenges DOD Faces in Restructuring Its Depot Maintenance Program (GAO/T-NSIAD-97-111, Mar. 18, 1997, and GAO/T-NSIAD-112, Apr. 10, 1997).

Navy Ordnance: Analysis of Business Area Price Increases and Financial Losses (GAO/AIMD/NSIAD-97-74, Mar. 14, 1997).

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